

In re Application of: Michal AMIT et al  
Serial No.: 10/537,784  
Filed: June 6, 2005  
Office Action Mailing Date: September 15, 2008

Examiner: Deborah Crouch  
Group Art Unit: 1632  
Attorney Docket: 29606

### **REMARKS**

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 153-179 and 181-237 are in this Application. Claims 218-220 have been withdrawn from consideration. Claims 153-156, 158-179, 181-203, 206-217, 221, 222, 225-228 and 230-237 have been rejected under 35 U.S.C. § 112. Claim 229 has been allowed. Claims 157, 204, 205, 223 and 223 have been objected to. Claims 153, 155-158, 170-177, 188-189, 203, 204, 221 and 223 have been amended herewith.

### **Amendments To The Claims**

#### **Claim Objections**

The Examiner has objected to claims 157, 204, 205, 223 and 224 as depending on a rejected claim, and states that these claims would be allowable if rewritten in an independent form, incorporating all the limitations of the independent claim.

In order to expedite prosecution of this case, Applicants have amended claims 157, 204 and 223 according to Examiner's suggestion, to thereby overcome Examiner's objections.

#### **35 U.S.C. § 112 Rejections**

The Examiner has rejected claims 153-156, 158-179, 181-203, 206-217, 221, 222, 225-228 and 230-237 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Examiner states the specification does not reasonably provide enablement for stem cells from human embryos, any species embryonic stem cell, growth on any type of matrix or cross-species extracellular matricides. The Examiner states that the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope of these claims.

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Specifically, the Examiner states that mammalian embryonic stem cells, including human, are produced by first forming an embryo, and then isolating specific embryonic cells and culturing them to develop embryonic stem cells, and that there are no embryonic or other stem cells in a mammalian embryo. In addition, the Examiner states that mammalian embryonic stem cells were known to be responsive to bFGF at the time of filing. Given the vast number of possible ESCs from all species, plant and animal as claimed, an undue amount of experimentation would be involved to determine the species and the particular matrix they would require for a culture of such stem cells to remain pluripotent, proliferative and undifferentiated. The Examiner further states that the generic term "matrix" is not enabled, but rather "extracellular matrix" is. The Examiner's rejections are respectfully traversed.

In order to expedite prosecution of this case, Applicants have elected to amend claims 153, 155, 156, 158, 170-172, 188-189, 203 and 221 according to Examiner's suggested language, to thereby overcome Examiner's rejections.

In view of the above claim amendments and remarks Applicants believe to have overcome the 35 U.S.C. § 112, first paragraph rejections.

The Examiner has further rejected claims 158, 170-177, 188 and 189 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

Specifically, the Examiner states that claims 158, 173 and 189 include the term "substantially" which has not been given a definite meaning in the art or in the specification, and as such the reader would not know the metes and bounds of these claims. In addition, the Examiner states that claims 153 and 188 state "*isolating stem cells of an embryo*", however, stem cells do not exist in embryos, but are developed by culturing certain embryonic cells such as ICM cells. Further, the Examiner states that claims 170, 171, 172, 174-177 and 188 state "*embryonic stem cell line of a species*", "*species derived matrix*", "*species embryonic stem cell line*", "*species-derived matrix*" and/or "*species-derived serum*", and that the terminology is

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confusing; and that depending on the intention of the claim, applicant may consider rewriting the claims to indicate "*same species*". The Examiner's rejections are respectfully traversed.

In order to expedite prosecution of this case, Applicants have elected to amend claims 158, 173 and 189 to exclude the term "*substantially*" from the claims; to amend claims 153 and 188 to include "*obtaining ICM cells from a blastocyst*"; and to amend claims 170, 171, 172, 174-177 and 188 such that it is clear that the ESCs, the matrix or the serum are from *the same species*, according to Examiner's suggested language, to thereby overcome Examiner's rejections.

In view of the above claim amendments and remarks Applicants believe to have overcome the 35 U.S.C. § 112, second paragraph rejections.

In view of the above amendments and remarks it is respectfully submitted that claims 153-179, 181-217 and 221-237 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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Date: February 17, 2009

**Enclosures:**

- Petition for Extension (Two Months)
- Additional Claims Transmittal Fee